

Cell positioning method using signal interception

Publication number: TW588160B

Publication date: 2004-05-21

Inventor: HE YE-CHIN (TW); HUNG YU-NENG (TW); CHEN JIAN-AN (TW); SHIU HUNG-JANG (TW); WU YUAN-TING (TW)

Applicant: CHUNGHWA TELECOM CO LTD (TW)

Classification:

- **international:** G01S5/00; G01S5/00; (IPC1-7): G01S5/00

- **European:**

Application number: TW20020113568 20020621

Priority number(s): TW20020113568 20020621

[Report a data error here](#)

Abstract of **TW588160B**

The present invention provides a cell positioning method using signal interception. Generally, SS7 signaling is employed to transfer routing information among GSM switches for correctly establishing communication paths based on the routing information. In the present invention, the transmitting cell information of handset is embedded in the routing information transmitted by a transmitting switch. When the information is transmitted to a gate switch, the signal is extracted to resolve the information of the cell where the calling handset locates. The present invention successfully utilizes the routing information transfer mechanism of the conventional switch network to obtain the position information of the calling handset. In other words, this technique can be easily applied to switch networks of different brands.

Data supplied from the **esp@cenet** database - Worldwide



WENPING & CO.

P. O. Box 1869, Taipei

TW 588160

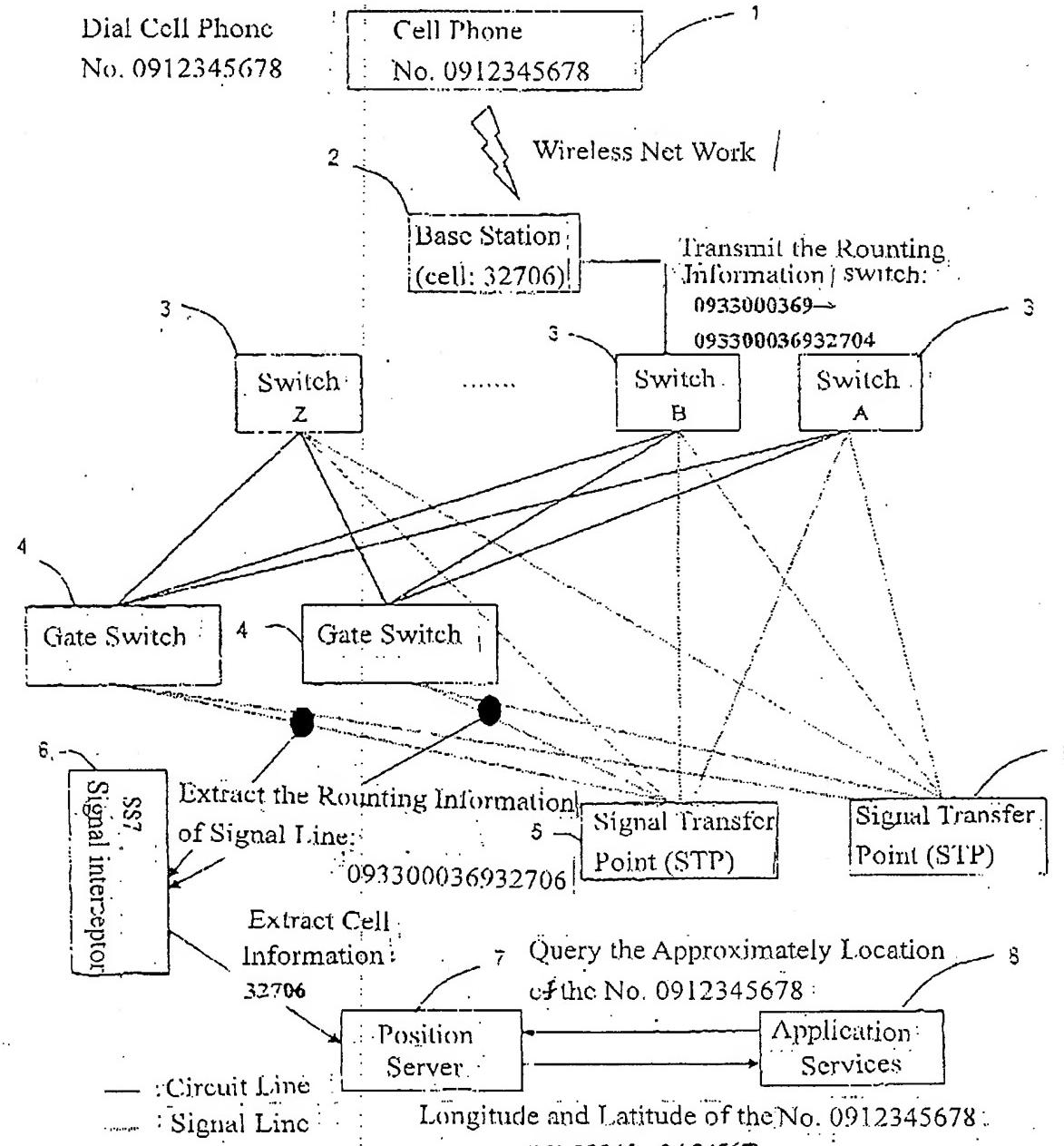
Claims

1. A cell positioning method using signal interception, comprising steps of:
 - (a) embedding transmitting cell number of handset in routing information by using a transmitting switch according to a central office configuration;
 - (b) using a routing configuration to guide all calls for positioning to a gate switch;
 - (c) extracting embedded said transmitting cell number of handset before a gate switch by a signal interceptor; and
 - (d) obtaining a reference longitude and latitude of a transmitting handset by using a position server according to a longitude and latitude of base station and cell directions.
2. The cell positioning method using signal interception as set forth in claim 1, wherein an applicable hardware infrastructure comprises a switch, a gate switch, a signal transfer point, a signal interceptor and a position server.
3. The cell positioning method using signal interception as set forth in claim 1 characterized by functions integrating application services systems for community life information services, missing person report services, and field dispatch services.

A9
B9
C9
D9

Drawing

(請先閱讀背面之注意事項再行繪製)



本紙張尺寸適用中國國家標準 (GB/T 14081-2007)